Project 5 **Due**: October 28, 2002
CMSC 104, Section 0801 Problem Solving and Introduction to Programming

This project is a combination of written work and programming. For each section read and follow the instructions carefully. You should turn in this worksheet, a printout of your program for problem #2, and you should submit your source code as usual to the TA via email at `pliu2@umbc.edu`. All work is due on October 28, 2002 at 5:30 pm.

SECTION 1: Logical Operators and Truth Tables

1. (6) For each logical statement below, evaluate the truth table:

a	b	`(!a && b) || (a && !b)`
0	0	
1	0	
0	1	
1	1	

a	b	c	`(!(a || b)) && (c || (a || !b))`
0	0	0	
1	0	0	
0	1	0	
0	0	1	
1	1	0	
1	0	1	
0	1	1	
1	1	1	

a	b	`((a % (b+1)) == 0) && (b = 0)`
0	0	
1	0	
0	1	
1	1	

SECTION 2: C Programming with Sequence, Selection, and Repetition

2. (14) Write a C program, `tri.c`, that will print out a triangle of `*`'s, where only the odd numbered lines are printed. The height of the triangle should be input by the user, and should be checked to ensure that the height is positive and odd. If the input value is inappropriate, the user should be prompted until the input value are correct.

When printing the triangle, only the odd numbered lines (i.e. 1, 3, 5, . . .) should contain `*`'s and the even lines should be blank (but included). The number of `*`'s printed on the odd lines should be equal to the line number. As an example, the triangle of height 13 is given below.

You program source code should be submitted via email to the TA at `pliu2@umbc.edu`, and you should turn in a hard-copy of your source code attached to this sheet. Good luck!

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